

into convulsions, until about 11 o'clock, when the pains suddenly ceased and the child somewhat receded, with a considerable gush of blood from the vagina; yet the patient made no exclamation that anything had occurred, as they are often described as doing in a case of ruptured uterus. Having a pair of short forceps at hand I endeavoured to reach the head, but was unable to. Vomiting coming on and the patient beginning to sink, and desiring to be let alone to die, I immediately sent for assistance and began to give her stimulants. Assistance soon arriving, and her pulse having somewhat improved, we proceeded to deliver her by turning. The feet were easily found and brought down, but it was with great difficulty that the head could be delivered. At first I could not find the placenta, but by tracing up the cord it was found escaped from the cavity of the uterus through a rent on the right side of the body; by strong traction on the cord it was finally withdrawn. The uterus seemed to contract but very little. I immediately gave her an anodyne with directions to continue it every hour until patient became quiet. The next morning I found her as comfortable as could be expected, having become quite easy since 7 o'clock, with one or two short naps. Pulse fair, about 100. Pain not severe though considerable tenderness, especially on the right side. Continued anodyne with calomel every three hours, with a poultice over the whole abdomen. She continued quite comfortable during the day. Next morning found her not as well. Pain and tenderness increased, with occasional vomiting during the night. During the forenoon vomiting came on almost continuously of dark green and watery matter, which continued until 3 P. M., when it entirely ceased. In the evening found her rather more comfortable. Pulse 110. Pains not great but extremely tender on pressure, with great tympanitis. Continue the same treatment. About 2 o'clock A. M. was called to patient and found her in collapse. Pulse not discernible. She continued perfectly conscious until 4 o'clock, when she died, being fifty-two hours from her delivery. No post-mortem was allowed.

DOMESTIC SUMMARY.

Treatment of Fractures by Plaster of Paris Splints.—DR. JAS. L. LITTLE, Resident Surgeon to New York Hospital, highly extols (*American Med. Times*, Dec. 7, 1861) plaster of Paris splints in the treatment of fractures. The advantages of this apparatus are, he states, "its facility of application, and its perfect adaptation to the limb, being borne by the patient better than any other form of apparatus. Although we have applied it more than twenty times, and in every case directly against the integument, yet in no instance has it given rise to any undue pressure over the malleoli or heel—points which are apt to trouble the surgeon considerably. Another interesting feature may be stated, that it has never produced any excoriations, but, on the contrary, in several instances where it has been applied over denuded surfaces, it has apparently exercised a healing effect.

"Its advantages over the starch bandage are its rapidity of drying and hardening, the plaster taking about five minutes 'to set,' while being held by the surgeon in its proper position; the starch apparatus requiring several days to dry unless artificial heat is applied. Another advantage is, that the limb can be inspected daily if necessary, without removing all the apparatus. It, therefore, can be applied much earlier than we have been in the habit of resorting to the starch bandage. It may be well to state that the starch apparatus has been generally used in the New York Hospital only after the fracture has become tolerably firm, since in several instances where it has been applied early in the

treatment, marked deformity has resulted. But the plaster of Paris casing allows the anterior surface of the limb to be exposed, and any displacement can consequently be readily detected.

"Its advantage over the gutta percha is its great *porosity*, keeping the limb perfectly dry without confining the perspiration, and thus doing away with one cause of irritation and excoriation. It does not require padding like the gutta percha, and it is much cheaper, an important item in hospital practice.

"*The mode of application to the leg is as follows:* The limb is first shaven or slightly oiled; a piece of old coarse washed muslin is next selected of a size so that when folded about four thicknesses it is wide enough to envelop more than half of the circumference of the limb, and long enough to extend from a little below the under surface of the knee to about five inches below the heel. The solution of plaster is then to be prepared. Fine, well dried, white plaster had better be selected, and before using a small portion should be mixed with water in a spoon and allowed 'to set,' with a view of ascertaining the length of time requisite for that process. If it is over five minutes, a small quantity of common salt had better be dissolved in the water before adding the plaster. The more salt added, the sooner will the plaster 'set.' If delay be necessary, the addition of a few drops of carpenter's glue or mucilage will subserve that end. Equal parts of water and plaster are the best proportions. The plaster is sprinkled in the water and gradually mixed with it. The cloth, unfolded, is then immersed in the solution and well saturated; it is then to be quickly folded as before arranged and laid on a flat surface, such as a board or a table, and smoothed once or twice with the hand in order to remove any irregularities of its surface, and then, with the help of an assistant, applied to the posterior surface of the limb. The portion extending below the heel is turned up on the sole of the foot, and the sides folded over the dorsum and a fold made at the ankle on either side, and a roller bandage applied pretty firmly over all. The limb is then to be held in a proper position (extension being made if necessary by the surgeon), until the plaster becomes hard. The time required in preparing the cloth, mixing the plaster, and applying the casing to the limb, need not take more than fifteen minutes. After the plaster is firm and the bandage removed, we will have a solid plaster of Paris case partially enveloping the limb, leaving a portion of its anterior surface exposed to view. If any swelling occurs evaporating lotions can be applied to the exposed surface, and we can always easily determine the relation of the fractured ends. If necessary, an anterior splint, made of the same material, can be applied, and then both bound together with adhesive plaster, and if desirable, a roller bandage over all. If the anterior splint is not used, two or three strips of adhesive plaster, one inch wide, or bands of any kind, may be applied around the casing, and will serve to keep it firmly adjusted to the limb. Thus applied, we have a most beautiful splint, partially enveloping the limb, making equal pressure, light, and allowing the patient to change his position in bed, or to sit up in a chair, or go about on crutches; and a splint which can be easily made in any place where plaster is to be had.

"This mode of dressing may be applied with great advantage in most cases of fractures of the tibia and fibula. In oblique fractures of the tibia with the projection of the superior fragment, it is well known how difficult it is to overcome the deformity; with the plaster of Paris splint, however, the results have been all that could be desired. After extension of the limb on the part of an assistant for the sake of bringing the fragments into perfect apposition, and while thus held, the plaster splint should be applied and allowed to harden.

"The limb is thus perfectly immovable. A strip of two or three thicknesses of muslin, about three inches wide, saturated with the plaster, may be applied transversely, if necessary, over the upper fragment, so as to bind it down in position. The cases in which this mode of dressing is not applicable, are those of fracture of the fibula with rupture of the internal lateral ligament, or, what is more common, a chipping off of a portion of the internal malleolus with the turning of the foot outwards. Where the deformity is considerable it cannot always be overcome at once, but requires steady pressure, with properly arranged pads, and the side splints, to bring out that result. This effected, to a certain extent, the plaster apparatus may be applied with advantage. In cases of fracture of

the fibula, without any displacement of the foot, it may be applied early in the treatment; upon the entire subsidence of the swelling it will become necessary to apply a new one. This second dressing in most cases will be sufficient for the remaining treatment.

"In *fractures about the knee-joint* and in cases of *synovitis*, where a posterior splint or knee-cap is needed in order to keep the limb in a straight or semi-flexed position, this mode of forming a splint can be made use of and answers better than the gutta percha. We have applied it to one case of synovitis after the acute symptoms had been subdued by the means of extension and counter-irritation, and it formed a very good posterior splint. In *fractures of the tarsal bones* it may likewise be used with advantage. Here it should be long enough to envelop the foot as far up as the toes.

"Two cases of *fracture of the astragalus* have been treated in this manner with good results.

"For *fractures of the lower jaw*, it can be made use of to construct a splint in the usual manner.

"In *fractures of the neck of the humerus*, where a shoulder splint, as recommended by Hamilton, is necessary, this may be made use of; it would make a much better and cheaper splint than the gutta percha, and it would fit the shoulder more accurately than any wooden splint that could be made.

"In *fractures of the shaft of the bone* it may also be used. It should be long enough to extend from the shoulder to the hand, and applied to the outside of the limb, the limb being flexed to a right angle, and extension being made so as to keep the fragments in position until the plaster 'sets.' If necessary, a small splint made of the same material can be applied to the inner side of the arm, and both bound together with a bandage. The limb, of course, is to be placed in a sling.

"For *fractures at the base of the condyles*, and other fractures in the vicinity of and involving the elbow-joint, which require the arm to be kept in a flexed position, this is decidedly the best mode of dressing. For this purpose angular splints made of tin, gutta percha, or pasteboard, are commonly used, and all require some little time for their construction. The plaster of Paris splint can be made in five minutes, and will fit itself to the inequalities of the arm more accurately than any other.

"Although we have had no opportunity of witnessing its application in cases of *club-foot*, we may venture an opinion that no better shoe could be constructed, and none which would fulfil more indications after tenotomy has been performed, than by these accurate mouldings to the limb. During and for a while after the application of this dressing, due attention should be paid to adjustment of the foot. The gutta-percha shoe, which is more troublesome to make, and certainly in many respects not as good, might thus be dispensed with."

Dr. L. recommends this mode of dressing in all instances where dispatch is important. "Many valuable lives," he remarks, "perhaps might be saved, and much suffering certainly alleviated upon the battle-field, by a resort to this expedient. No great amount of surgical skill is requisite for its use, and not much room need be taken up in the packing away of the plaster in its dry state, proper care, of course, being taken to prevent the contact of moisture. Again, the art of its application, if such we may style it, can be very readily communicated to any of ordinary intelligence, such, for instance, as those presumed to compose an ambulance corps. Patients with limbs dressed in this manner might be transported comfortably."

Poisoning by Aconite—Successful Use of Nux Vomica as an Antidote.—In a preceding part of this No. (see p. 276), we have given some experiments made on animals to ascertain the applicability of aconite for the relief of poisoning by strychnia, and remarked that observations on the human subject were required to confirm the antagonistic action of these articles.

Such confirmation is afforded by the following case, related by Dr. D. D. HANSON (*Boston Medical and Surgical Journal*, September 26, 1861):—

The subject of it was a coloured boy, 5 years of age, who surreptitiously took a mixture of tincture of aconite and simple syrup. When seen by Dr. H.